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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,557	03/29/2001	Dan Martin Scott	9090.0003-02	4971

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EXAMINER
AMINI, JAVID A

ART UNIT	PAPER NUMBER
2672	8

DATE MAILED: 04/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/820,557	SCOTT ET AL.	
	Examiner	Art Unit	
	Javid A Amini	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-12,14-17,19 and 20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-12,14-17,19 and 20* is/are rejected.

7)☒ Claim(s) *1-6,8-12,14-17, and 19-20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Response to Amendment

Amendments to the claims:

Claims 7, 13 and 18 (canceled)

Claim 1, (Amended): A method of georeferencing a raster map, comprising: [receiving a display of] displaying a first map in one area of a display, said first map being a digital raster map-, [and] displaying a second map in a second area of the display[, the first map being a digital raster map], the second map being a [previously] georeferenced map that displays at least a portion of an identical geographic region displayed in the raster map; [receiving a manipulation of the first map such that the first map and the second map are approximately aligned; displaying the first map and the second mapj selecting at least two points [receiving a selection of a point pair point] on the first map; and selecting at least two points [receiving a selection of a corresponding point pair point] on the second map, wherein each point selected on the second map corresponds to a point selected on the first map; and assiming a geographic coordinate associated with each selected point on the second map to each corresponding r)oint on the first map.

Claim 2. (Amended): The method of claim 1 further comprising receiving a verification that [the point pair] a point selected on the first map is correctly associated with the corresponding point [pair point] selected on the second map.

Claim 3, (Amended) The method of claim 1 wherein [receiving a manipulation places]the first map[within] is a portion of the second map.

Claim 4, (Amended): The method of claim 1 further comprising providing a longitude and latitude to the point [pair point] on the second map.

Claim 5, (Amended): The method of claim 1 wherein the point [pair point]on the second map has a known longitude and latitude.

Claim 6, (Amended) The method of claim 1 further generating a georeferencing function to output a geographic coordinate for each successive point selected on the first map.

Claim 9, (Amended): The method of claim 8 further comprising receiving a correction of the reproduced [mark] point.

Claim 11, (Amended): A computer readable medium [whose contents transform a computer system into a raster map georeferencing system, by] containing instructions executable by a computer to georeferenced a raster map, the method comprising: [receiving a display of] displaying a first map in one area of a display, said first map being a digital raster map: [and] displaying a second map in a second area of the displaying the first map being a digital raster map], the second map being a

[previously] georeferenced map that displays at least a portion of an identical geographic region displayed in the raster map; [receiving a manipulation of the first map such that the first map and the second map are approximately aligned; displaying the first map and the second mapj selectinq at least two points [receiving a selection of a point pair point] on the first map; and selecting at least two points [receiving a selection of a corresponding point pair point] on the second map, wherein each point selected on the second map corresponds to a point selected on the first mal2; and assigning a geographic coordinate associated with each selected point on the second map to each corresponding point on the first map.

Claim 12, (Amended): The computer readable medium of claim 11 wherein the contents of the computer-readable medium are also capable of verifying that the point [pair point]on the first map is correctly associated with the point [pair point]on the second map.

Claim 15, (Amended): The computer readable medium of claim 11, wherein the contents of the computer-read able medium are also capable of providing a longitude and latitude to the point [pair point]on the second map.

Claim 16, (Amended): [A computer memory containing a data structure capable of enabling the georeferencing of a raster map, the data structure changing a general computing platform into a specific computing machine, by] An apparatus for georeferencing a raster map, comprising: [receiving a display of] means for displaying a first map in one area of a display, said first map being a digital raster map-, land] means for displaying a second map in a second area of the displayj the first map being a digital raster mapj the second map being a [previously] georeferenced map that displays at least a portion of an identical geographic region displayed in the raster map; [receiving a manipulation of the first map such that the first map and the second map are approximately aligned; displaying the first map and the second mapj means for selecting at least two points [receiving a selection of a point pair point] on the first map; and means for selecting at least two points [receiving a selection of a corresponding point pair point] on the second map, wherein each point selected on the second map corresponds to a point selected on the first map; and means for assigning a geographic coordinate associated with each selected point on the second map to each corresponding point on the first map.

Claim 17, (Amended): The [computer memory] apparatus of claim 16 [wherein the data structure] further comprising means for [verifies] verifying that the point [pair point]on the first map is correctly associated with the point [pair point]on the second map.

Claim 19, (Amended) The [computer memory] apparatus of claim 16 [wherein the data structure] further comprising means for [marks] marking a point on the first map, the point on the first map being automatically reproduced on the second map.

Claim 20, (Amended) The [computer memory] apparatus of claim 16 [wherein the data structure] further comprising means for [provides] providing a longitude and latitude to the point [pair point] on the [second] fjLsj map.

Amendments to the Specification:

IN THE SPECIFICATION: Amended the third full paragraph on page 2 of the specification to read as follows: Also because vector maps are commonly drawn from a geographic data set describing the area shown, they are very easily, and generally inherently, georeferenced. Georeferencing is the process of relating source coordinates to referenced geographic coordinates [.], which are typically in standard latitude/longitude. An image or a vector file is georeferenced to be used within a mapping/geographic environment. In a vector map, the data from which the map is drawn will typically already include a geographic coordinate set.

Amended the second full paragraph on page 10 of the specification to read as follows:
When four or more georeferencing point-pairs are determined, the general linear georeferencing functions are over-determined. This means that more than the required amount of information to compute the general linear georeferencing functions is available, but that it is not, in general, completely consistent. The system [use] uses the extra information contained in the additional georeferencing points to provide validation checks to protect against the possibility that some of the data points may be inaccurate (step 430). Points that deviate excessively with respect to a calculated standard error are presumed to be inaccurate and are omitted from the calculation of the georeferencing functions. Note that as new [point] points are added, the system also rechecks points previously marked as inconsistent, to determine if those points should now be considered when recomputing the georeferencing functions.

Amended the first and second full paragraphs on page 11 of the specification to read as follows:
The user may then proceed [o] to enter the next point-pair (step 440)[ ]. When the user is finished, the system stores the active georeferencing functions with the raster-map (step [is] 1445). At this time, the raster map is considered fully georeferenced. When accessed at any future time, the system may simply retrieve the georeferencing functions, and apply them to find the latitude and longitude of any point on the raster map.
The process of determining [he] the georeferencing function set from a set of point-pairs is believed to be within the ability of one of ordinary skill in the art. The specific approach used by the system [an] and method of the preferred embodiment is discussed below.

Amended the fourth paragraph on page 11 of the specification to read as follows:
Once determined, f will [b] be the georeferencing function which is used to compute corresponding latitude and longitude values [,] *(Lon, Lat)* for any point [,] *(x,y)* on the bitmap. There are any number of possible ways to define the function that "comes closest to making (1) true." We shall follow a "least squares" approach also known in mathematics as an L2 approach. This approach seeks to find the function, f, which minimizes the sum of the squared differences between the actual and the predicted values of latitude and longitude. In other words, from among all the functions $f \varepsilon F$, f is the one which minimizes:

Amended the first full paragraph on page 12 of the specification to read as follows:

Among various alternative methods for choosing the function *f* are choosing it so [t ht] that it minimizes the sum of absolute errors (rather than squared errors), or so that it minimizes the largest error. Other criteria are also possible.

Amended the last paragraph on page 13 of the specification to read as follows:
These systems can be easily [solve] solved by well: known methods, such as Gaussian Elimination [,] or LU factorization. The solutions yield the desired values of a11, a12, a21, a22, b1, and b2. It should be noted that equations (5a) and (5b) do not have a unique solution unless three or more non-collinear points are contained in A. Generally speaking, then, it requires 3 points to choose a georeferencing function from the family of general linear transformations. When there are four points or more, it is possible to compute a standard deviation of errors using the formula:

Amended the first and second paragraphs on page 16 of the specification to read as follows:
These systems can be easily solved by well-known methods, such as Gaussian Elimination [,] or LU factorization. The solutions yield the [desire] desired values of β1, [β1] β2, [β1] β3, and [β1] β4, which in turn yield the desired values for a11, a12, a21, a22, b1, and b2. It should be noted that equation (8) does not have a unique solution unless two or [m re] more points are contained in A. Generally speaking, then it requires two points to determine a georeferencing function from the family of rotational linear transformations. When there are three points or more, it is possible to compute a standard deviation of error, s using the formula:

Amended the second paragraph on page 17 of the specification to read as follows:
When individual points are being assigned x, y, Lon, and Lat values, there is always a potential for error. To reduce the risk of incorrect georeferencing resulting from such errors, certain error handling procedures are built into the georeferencing process. The fundamental concept is that of detecting a "bad" point and then removing it from the set of active points, A. Note that removing a bad point from A will not delete the information [associate,] associated with that point, but it will cause the georeferencing parameters to be completely uninfluenced by that point. We [o] do not wish to remove the point entirely, since it may be determined at a later stage of the georeferencing, that the point was not really bad at all, and should be [-]_used in the georeferencing calculation. This will be clarified shortly.

Amended the second full paragraph on page 18 of the specification to read as follows:
There are several things to note about this procedure. One is that [it] allowing the [value] values of c1 and c2 to change with the number of active points, makes it possible for the georeferencing system and method to utilize points which it might originally determine bad or inconsistent after a large enough sample of points has been gathered to make it clear that a lesser level of accuracy is all that can be achieved on this map. Another observation is that by using this procedure it is impossible to reduce the number of active points down to less than four (unless you started with less than 4 in which case this procedure does not apply at all). This scheme means that as each new point is added, all points determined so far are considered, even those [which] that had previously been marked bad. Thus early "misjudgments" on the part of the system can be corrected later, in light of new point information.

Amended the last paragraph on page 19 of the specification to read as follows:
A specific example of the operation and application of the preferred georeferencing method may be shown with reference to the "Flood Zone Determination" business. The Federal Emergency Management Agency (FEMA) publishes a library of tens of thousands of paper maps showing various types of flood zones and their locations in the United States. A flood zone determination on a property is frequently done in the following way:
1. The address of the property is examined, and the location of the property is determined (perhaps through the use of a geocoding system, or [b] by examining an available street map).
2. A map analyst attempts to determine which of the many thousands of FEMA flood maps will contain this property.
3. The map analyst goes to a map storage area and retrieves the desired map, often examining several maps before making a final selection.
4. Having retrieved the paper map, the map analyst next determines where, precisely, the property is located on the map.
5. Finally, the map analyst examines flood zone notations on the map at the property's location in order to determine its flood-zone status.

Amended the last paragraph on page 20 of the specification to read as follows:
Using georeferenced flood map raster images, steps 2 and 4 above, are replaced by:
2. A computer system combines the pre-designated outlines of the raster map and the georeferencing information to obtain a polygon expressed in terms of latitude and longitude that outlines the region included in each flood map. Then the system determines which of the polygons contain the address in question, which is done using a "point-in-polygon" algorithm. At the conclusion of this process, the computer system has identified a map panel (or perhaps a small number of map panels) that contains the address.
4. Since the latitude and longitude of the property are known (by virtue of a geocoding phase), the computer system can use the georeferencing of the map panels to locate the property on each of the panels found above, thus largely eliminating any need for [he] the map analyst to scan the flood map for the address location.

Response to remarks on page 12

Response to the remarks on page 13, about title and abstract: the objected matter is still maintained. Applicant should include the part of the claimed invention in the title and to the abstract.
Response to the remarks on page 14, the rejection of claims under 35 U.S.C 112 has been removed.

Specification

The abstract and the title of the disclosure are objected to because are duplicated of abstract and title of applications 09/537849, 09/821638 and 09/537849. Correction is required. See MPEP 608.01(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-19 rejected under 35 U.S.C. 102(b) as being anticipated by Delorme et al. 5,848,373.

1. Claim 1,

As per claim 1 "A method of georeferencing a raster map, comprising: displaying a first map in one area of a display, said first map being a digital raster map; displaying a second map in a second area of the display, the second map being a georeferenced map that displays at least a portion of an identical geographic region displayed in the raster map; selecting at least two points on the first map; and selecting at least two points on the second map, wherein each point selected on the second map corresponds to a point selected on the first map; and assigning a geographic coordinate associated with each selected point on the second map to each corresponding point on the first map", Delorme teaches in Fig. 6, (first and second maps) a view of the CAMLS system with desktop PC or workstation programmed for printing strip maps or "trip tickets" showing proposed routes of travel from a point of origin to a destination. Delorme teaches in (col. 42, lines 34-51)

conversion routines for raster data, symbols & annotations an array of conversion routines for conversion of raster data consisting of mapping graphics and related text, derived from input devices such as scanned in paper maps, message pads, digitizing tables, graphics and CAD programs, fax and wireless data transmissions into standard CAMLS data structures.

2. Claim 2,

As per claim 2, The method of claim 1 further comprising receiving a verification that a point selected on the first map is correctly associated with the corresponding point selected on the second map", the step is inherent because Delorme teaches in (col. 30, lines 37-55) Known programming techniques, which involve a process of matching the particulars of identified data structures with pre-defined criteria, are sufficient to enable CAMLS software to perform the reading and recognition tasks.

3. Claim 3,

As per claim 3, " The method of claim 1 wherein the first map is a portion of the second map", Delorme teaches in Fig. 6 and (col. 50, lines 59-67) An array of display/output routines facilitating automatic control and user selection of the duration, precedence, portion of screen display or other output dimension that is shared or preempted by concurrent or collocated loc/objects such as the ongoing mapping display/output with a variety of located content such as alarms, signals, communications and messages, with variable urgency or priority.

4. Claim 4,

As per claim 4, "the method of claim 1 further comprising providing a longitude and latitude to the point on the second map", Delorme teaches in abstract the boundary lines of the respective first scale grid quadrangles are identified in the first database by latitude and longitude location.

5. Claim 5,

As per claim 5, "the method of claim 1 wherein the point on the second map has a known longitude and latitude", the step is inherent because two objects are in correlation therefore, Delorme teaches in (col. 1, lines 37-45) the invention permits correlation, coordination and communication of diverse data such as location data, geographical and GIS data, related text and alphanumeric data, mapping data, and visual, auditory, and other sensory data.

6. Claim 6,

As per claim 6, "the method of claim 1 further generating a georeferencing function to output a geographic coordinate for each successive point selected on the first map", the step is inherent because the subject of the invention is computer aided map location system, see Delorme.

7. Claim 8,

As per claim 8, "the method of claim 1, further comprising the act of receiving a mark on a point on the first map, the point on the first map being automatically reproduced on the second map", Delorme teaches in Fig. 6, a view of the CAMLS system with desktop PC or workstation programmed for printing strip maps or "trip tickets" showing proposed routes of travel from a point of origin to a destination.

8. Claim 9,

As per claim 9, "the method of claim 8 further comprising receiving a correction of the reproduced point", Delorme teaches in Fig. 6, a view of the CAMLS system with desktop PC or workstation programmed for printing strip maps or "trip tickets" showing proposed routes of travel from a point of origin to a destination.

9. Claim 10,

As per claim 10, "the method of claim 1 further comprising selecting a predefined georeferencing function to associate a point on the first map with a point on the second map", the step is inherent because a predefined georeferencing function should be associated with a point on the map.

10. Claim11,

As per claim 11, "A computer readable medium containing instructions executable by a computer to georeferenced a raster map, the method comprising: displaying a first map in one area of a display, said first map being a digital raster map; displaying a second map in a second area of the display, the second map being a georeferenced map that displays at least a portion of an identical geographic region displayed in the raster map; selecting at least two points on the first map; and selecting at least two points on the second map, wherein each point selected on the second map corresponds to a point selected on the first map; and assigning a geographic coordinate associated with each selected point on the second map to each corresponding point on the first map", Delorme teaches in Fig. 6, a view of the CAMLS system with desktop PC or workstation programmed for printing strip maps or "trip tickets" showing proposed routes of travel from a point of origin to a destination. Delorme teaches in (col. 42, lines 34-51) conversion routines for raster data, symbols & annotations an array of conversion routines for conversion of raster data consisting of mapping graphics and related text, derived from input devices such as scanned in paper maps, message pads, digitizing tables, graphics and CAD programs, fax and wireless data transmissions into standard CAMLS data structures.

11. Claim 12,

As per claim 12, "The computer readable medium of claim 11 wherein the contents of the computer-readable medium are also capable of verifying that the point on the first map is correctly associated with the point on the second map", the step is inherent because Delorme teaches in (col.

30, lines 37-55) Known programming techniques, which involve a process of matching the particulars of identified data structures with pre-defined criteria, are sufficient to enable CAMLS software to perform the reading and recognition tasks.

12. Claim 14,

As per claim 14, "wherein the contents of the computer readable medium are also capable of allowing a user to mark a point on the first map, the point on the first map being automatically reproduced on the second map", Delorme teaches in Fig. 6, a view of the CAMLS system with desktop PC or workstation programmed for printing strip maps or "trip tickets" showing proposed routes of travel from a point of origin to a destination.

13. Claim 15,

As per claim 15, "The computer readable medium of claim 11, wherein the contents of the computer-readable medium are also capable of providing a longitude and latitude to the point on the second map", Delorme teaches in abstract the boundary lines of the respective first scale grid quadrangles are identified in the first database by latitude and longitude location.

14. Claim 16,

As per claim 16, "An apparatus for georeferencing a raster map, comprising: means for displaying a first map in one area of a display, said first map being a digital raster map; means for displaying a second map in a second area of the display, the second map being a georeferenced map that displays at least a portion of an identical geographic region displayed in the raster map; means for selecting at least two points on the first map; and means for selecting at least two points on the second map, wherein each point selected on the second map corresponds to a point selected on the first map; and means for assigning a geographic coordinate associated with each selected point on the second map

to each corresponding point on the first map", Delorme teaches in Fig. 6, a view of the CAMLS system with desktop PC or workstation programmed for printing strip maps or "trip tickets" showing proposed routes of travel from a point of origin to a destination. Delorme teaches in (col. 42, lines 34-51) conversion routines for raster data, symbols & annotations an array of conversion routines for conversion of raster data consisting of mapping graphics and related text, derived from input devices such as scanned in paper maps, message pads, digitizing tables, graphics and CAD programs, fax and wireless data transmissions into standard CAMLS data structures.

15. Claim 17,

As per claim 17 line 13 page 25 "wherein the data structure verifies that the point pair point on the first map is correctly associated with the point pair point on the second map", the step is inherent because Delorme teaches in (col. 30, lines 37-55) Known programming techniques, which involve a process of matching the particulars of identified data structures with pre-defined criteria, are sufficient to enable CAMLS software to perform the reading and recognition tasks.

16. Claim 19,

As per claim 19, "The apparatus of claim 16 further comprising means for marking a point on the first map, the point on the first map being automatically reproduced on the second map", Delorme teaches in Fig. 6, a view of the CAMLS system with desktop PC or workstation programmed for printing strip maps or "trip tickets" showing proposed routes of travel from a point of origin to a destination.

17. Claim 20,

As per claim 20, "The apparatus of claim 16 further comprising means for providing a longitude and latitude to the point on the first map", Delorme teaches in abstract the boundary lines of the

respective first scale grid quadrangles are identified in the first database by latitude and longitude location.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

18. Claim 9 rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant should provide a complete illustration of how a correction of the reproduced point is received?

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

19. Claims 8,9,14 and 19 recites the limitation "reproduced". There is insufficient antecedent basis for this limitation in the claim. Applicant should describe how the reproduced point achieved.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the

mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A Amini whose telephone number is 703-605-4248. The examiner can normally be reached on 8-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 703-305-4713. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-8705 for regular communications and 703-746-8705 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

Javid Amini
April 17, 2003

MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600